Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method [[of]] for use in a decoder, comprising the steps of:

generating a reliability value from a received multilevel signal in relation to a number of predetermined signal symbols each associated with a corresponding bit sequence including a first bit position, the soft value being indicative of a reliability value for the first bit position~~, the method comprising:~~;

identifying a first one of the number of signal symbols as being closest to the received multilevel signal;

estimating the soft value as a function of a first distance between the received signal and the first signal symbol and of a second distance between the received signal and a second one of the number of signal symbols that is closest to the first signal symbol and corresponds to a different binary value at the first bit position of the respective associated bit sequence than the first signal symbol; ~~and~~

inputting the reliability value into a decoder that uses soft values as an input; and

wherein estimating the soft value comprises estimating the second distance by a stored third distance between the first signal symbol and the second signal symbol.

2-3. (Canceled)

4. (Currently Amended) The method according to claim 1, wherein the step of estimating the soft value comprises the step of determining ~~(506, 507)~~ a polynomial function of the first distance and the second distance, wherein the polynomial function is multiplied by a predetermined constant (K).

5. (Currently Amended) The method according to claim 4, wherein the predetermined constant is selected depending on the noise distribution of the received multilevel signal.

6. (Canceled)

7. (Currently Amended) The method according to claim 1, ~~anyone of the claims 1, 4, and 5~~ wherein the third distance is stored in a look-up table indexed by the number of signal symbols and the bit positions.

8. (Currently Amended) A The method according to claim 1, ~~anyone of the claims 1, 4, 5, 31, and 32~~ wherein the method further comprises the step of providing the soft value as an input to a decoder.

9. (Canceled)

10. (Currently Amended) The method according to claim 1, ~~anyone of the claims 1, 4, 5, 31, and 32~~ wherein the soft value is calculated as a log-likelihood ratio.

11. (Currently Amended) The method according to claim 1, ~~anyone of the claims 1, 4, 5, 31, and 32~~ wherein the step of identifying the first signal symbol as being closest to the received multilevel signal comprises the step of identifying the first signal symbol as being closest to the received multilevel signal with respect to a Euclidean distance measure in a signal space.

12. (Previously Presented) The method according to claim 11, wherein the signal space is related to the complex plane in quadrature amplitude modulation.

13. (Canceled)

14. (Currently Amended) The method according to claim 1, ~~anyone of the claims 1, 4, 5, 31, and 32~~ wherein the number of signal symbols are associated with the number of bit sequences such that the bit sequences associated with all nearest ~~neighbours~~ neighbors of each signal symbol only differ from the bit sequence of that signal symbol at one bit position.

15. (Currently Amended) A device for use with a decoder, comprising:

means for generating a soft value from a received multilevel signal in relation to a number of predetermined signal symbols each associated with a corresponding bit sequence including a first bit position, the soft value being indicative of a reliability value for the first bit position~~, the device comprising~~;

processing means adapted to

identify a first one of the number of signal symbols as being closest to the received multilevel signal; and

estimate the soft value as a function of a first distance between the received signal and the first signal symbol and of a second distance between the received signal and a second one of the number of signal symbols, that is closest to the first signal symbol and corresponds to a different binary value at the first bit position of the respective associated bit sequence than the first signal symbol;

storage means adapted to store a third distance between the first signal symbol and the second signal symbol; and

wherein the processing means is further adapted to estimate the second distance by the stored third distance.

16-17. (Canceled)

18. (Previously Presented) The device according to claim 15, wherein the processing means is further adapted to determine a polynomial function of the first distance and the second distance, wherein the polynomial function is multiplied by a predetermined constant (K).

19. (Previously Presented) The device according to claim 18, wherein the predetermined constant is a function of the noise distribution of the received multilevel signal.

20. (Canceled)

21. (Currently Amended) The device according to claim 15 ~~anyone of the claims 15 through 20~~, wherein the storage means is adapted to store a the third distance in a look-up table indexed by the number of signal symbols and the bit positions.

22-30. (Canceled)

31. (Currently Amended) A method [[of]] for use with a decoder, comprising the steps of:

generating a soft value from a received multilevel signal in relation to a number of predetermined signal symbols each associated with a corresponding bit sequence including a first bit position, the soft value being indicative of a reliability value for the first bit position, the method further comprising:

identifying a first one of the number of signal symbols as being closest to the received multilevel signal;

estimating the soft value as a function of a first distance between the received signal and the first signal symbol and of a second distance between the received signal and a second one of the number of signal symbols that is closest to the first signal symbol and corresponds to a different binary value at the first bit position of the respective associated bit sequence than the first signal symbol; and

wherein estimating the soft value further comprises the step of selecting, dependent on the first signal symbol and the first bit position, one of a number of stored functional relations between the received multilevel signal and the soft value.

32. (Previously Presented) The method according to claim 31, wherein the stored functional relations are stored in a look-up table indexed by the number of signal symbols and the bit positions.

33. (Currently Amended) The method according to claim 1 ~~anyone of claims 1, 4, 5, 31, and 32~~, wherein identifying the first signal symbol comprises comparing the signal components of the received multilevel signal with predetermined threshold values.

34. (Currently Amended) A device for use with a decoder, comprising:

means for generating a soft value from a received multilevel signal in relation to a number of predetermined signal symbols each associated with a corresponding bit sequence including a first bit position, the soft value being indicative of a reliability value for the first bit position, the device~~, comprising:~~;

processing means adapted to

identify a first one of the number of signal symbols as being closest to the received multilevel signal; and

estimate the soft value as a function of a first distance between the received signal and the first signal symbol and of a second distance between the received signal and a second one of the number of signal symbols that is closest to the first signal symbol and corresponds to a different binary value at the first bit position of the respective associated bit sequence than the first signal symbol;

storage means adapted to store a number of functional relations between the received multilevel signal and the soft value;

output means adapted to output the reliability value from the device to an input of a decoder; and

wherein the processing means is further adapted to select a functional relation of said number of functional relations dependent on the first signal symbol and the first bit position.

35. (Previously Presented) The device according to claim 34, wherein the storage means is adapted to store the number of functional relations in a look-up table indexed by the number of signal symbols and the bit positions.

36. (Previously Presented) The device according to claim 34, wherein the processing means is adapted to identify the first signal symbol by comparing the signal components of the received multilevel signal with predetermined threshold values.

37. (Currently Amended) The device according to claim 34 ~~anyone of claims 34 through 36~~, wherein the processing means is adapted to calculate the soft value as a log-likelihood ratio.

38. (Currently Amended) The device according to anyone to claim 34 ~~anyone of claims 34 through 36~~, wherein the processing means is further adapted to identify the first signal symbol as being closest to the received multilevel signal with respect to a Euclidean distances in a signal space.

39. (Previously Presented) The device according to claim 38, wherein the signal space is related to the complex plane in quadrature amplitude modulation.

40. (Currently Amended) The device according to claim 34 ~~anyone of claims 34 through 36~~,wherein the number of signal symbols are associated with the number of bit sequences such that the bit sequences associated with all nearest neighbours of each signal symbol only differ from the bit sequence of that signal symbol at one bit position.

41. (Previously Presented) The device according to claim 34, wherein the device further comprises a decoder adapted to receive an input signal from the arrangement indicative of the determined soft value.

42. (Previously Presented) The device according to claim 34, wherein the device is operable as a mobile terminal.

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